



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,338	08/01/2003	Brett Franklin Thompson	50303/THD/C1022	3179
23363	7590	04/18/2007	EXAMINER	
CHRISTIE, PARKER & HALE, LLP			GILLAN, RYAN P	
PO BOX 7068			ART UNIT	PAPER NUMBER
PASADENA, CA 91109-7068			3746	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/18/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/632,338	THOMPSON ET AL.
	Examiner Ryan P. Gillan	Art Unit 3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 08 September 2006.
- 2a) This action is FINAL.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-7 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 01 August 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____.

## DETAILED ACTION

Due to new grounds of rejection this Office Action is made Non-Final.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3 and 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa (3,398,687) in view of Robinson (4,190,131). Yoshikawa discloses a pump comprising a casing having two casing sections (Fig.1, items 1,2) defining a casing cavity; an electrical motor comprising a motor casing having two ends and a side positioned there between mounted inside the casing cavity having a motor shaft protruding from one of the ends (Fig.1, item 3), a seal mounted on the motor shaft for deterring fluids from leaking into an interior space of the motor casing (Fig.2, items 13,14), an impeller mounted on an end of the motor shaft adjacent the seal (Fig.1, item 6); and a flow channel formed between an inlet nozzle and an outlet nozzle inside the casing cavity adapted to permit fluids drawn from the inlet nozzle to flow over at least a portion of the side of the electrical motor to cool the electrical motor before exiting the outlet nozzle (not labeled; however, clearly seen in Fig. 1); An inlet nozzle positioned on one of the tapered ends and an outlet nozzle positioned on the other tapered end (Fig.1, items 1a, 2a), one of the two casing sections comprising a terminal nozzle for

terminating a power cord (Fig.1, item 7a), at least one support leg located on an exterior surface of the casing for supporting the centrifugal pump (Fig.1, item 10), a motor electrical cover positioned over an end of the electrical motor comprising an indentation section (Fig.2, items 13), a casing having a football shape configuration.

1. Yoshikawa teaches all of the claim limitations cited above, but fails to teach the following claim limitations taught by Robinson each casing section having an external shell (8) and an internal shell (2) defining a gap (6) therebetween. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the casing of Yoshikawa by incorporating the casing taught by Robinson as a means of reducing noise emanating from the pump (Robinson, abstract and col. 1 lines 28-37).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa and Robinson in view of Hackett (5,378,121). In regards to claims 4 the combination of Yoshikawa and Robinson sets forth a device as described above, but

fails to teach the centrifugal pump comprising a closed impeller. Hackett teaches the use of a closed impeller (Fig.1, item 6) to direct the flow of the fluid towards the wall of the outer housing. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to modify the Yoshikawa device by replacing the original impeller with the closed impeller as taught by Hackett, in order to advantageously direct the fluid flow over the motor to better cool it, therefore extending its operating life.

4. In regards to claim 5 the combination of Yoshikawa and Robinson sets forth a device as described above but fails to teach the centrifugal pump comprising a pump base. Hackett teaches the use of a base (Fig.1, items 60,62) to permit the pump to be secured to a surface for safer operation. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to modify the Yoshikawa device by replacing the original support leg with the base configuration as taught by Hackett, in order to allow the pump to be secured to a stationary piece so that it can safely operate.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa and Robinson in view of Hamasaki et al. (6,287,090). In regards to claim 6 the combination of Yoshikawa and Robinson sets forth a device as described above, but fails to teach the centrifugal pump comprising a mounting gland, which is compressed against a motor flange with an O-ring compressed there between. Hamasaki et al. teach the use of a "tongue and groove" connection which is used to provide easy assembly of an electric pump apparatus. Therefore it would have been

obvious to one of ordinary skill in the art at time the invention was made to modify the Yoshikawa device by replacing the original connection between the motor and the pump housing with the "tongue and groove" connection as taught by Hamasaki et al., in order to provide an easier connection between the motor and housing, therefore making it easier to perform maintenance and or remove the motor from the pump housing.

***Response to Arguments***

6. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan P. Gillan whose telephone number is (571) 272-8381. The examiner can normally be reached on M-F 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on (571) 272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RPG



ANTHONY D. STASHICK  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700